

### **REMARKS**

Claims 1, 3-5, 7-12, 15 and 16 are pending, with claims 9-12 withdrawn from consideration. By this amendment, claims 1, 15 and 16 are amended. Claims 15 and 16 are amended to maintain consistency with amended claim 1.

No new matter is added to the application by this Amendment.

Entry of the amendments is proper under 37 CFR 1.116 because the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration as the amendments amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because the amendments are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Reconsideration of the application is respectfully requested.

#### **I. Rejection Under 35 USC 103**

##### **A. Terry et al.**

Claims 1 and 3-7 were rejected under 35 USC 103(a) as allegedly being unpatentable over US Patent Publication 2005/0180704 to Terry et al. (hereinafter "Terry"). This rejection is respectfully traversed.

The Patent Office alleges that each and every feature of the foregoing claims would have been obvious to a skilled artisan, at the time of the invention, in view of the teachings of Terry. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

Amended claim 1 requires that the first side of the first outer layer A is connected, via a first mechanical bond formation, to a separate layer C over an entire area of the first side of the first outer layer A, wherein the layer C is connected, via a second mechanical bond formation, on an open side to a separate second outer layer B over an entire area of a first side of the second outer layer B, wherein the mechanical bond formations join, without adhesive, the separate layers A, B and C to form the backing.

The Patent Office again alleges that paragraph [0049] of Terry discloses a resulting structure comprising a mechanical bond formation joining, without adhesive, the separate layer A, B and C to form an assembly (see page 4 of the Final Rejection). On page 10 of the Final Rejection, the Patent Office also sets forth:

38. Applicants argue that paragraph [0049] of Terry fails to teach mechanical bond formation without adhesive but rather teaches the use of adhesive.

39. However, while it is agreed that embodiments of Figures 4-6 utilize adhesive from paragraph [0049], it can be seen that the embodiments of Figures 2-3 do not require adhesive (paragraphs [0029]-[0031], [0049]).

Paragraphs [0029]-[0031] and [0049] of Terry sets forth:

**[0029] FIG. 2** shows an exemplary view of an open construction layer **10** in combination with an SAP material impregnated **12** within the open layer. In such a construction when exposed to water the SAP layer is arranged to swell within the interstices of the open construction layer. Typically the open construction layer will be an open called foam layer. Hereafter the term "open layer" will refer to any such layer into which the SAP material may, at least partly, swell. With respect to **FIG. 2** SAP material swells into, and in some applications completely saturates the open layer. In typical applications the open layer presents a smooth surface that shields the inner cable core elements (the power or information carrying elements within the cable) from the rough SAP particles. Moreover, the open layer is conformable to the inner cable core elements when applied, thereby holding and securing those elements in position.

[0030] The dynamics of the swelling of the SAP substantially into the open layer is controlled by controlling the type and amount of SAP material and the open cell material itself. The result is a controlled increase in the thickness of the tape. Typically thickness increases of 1 to 30 mm are encountered, but such increases are not meant as limiting to the applications or the present invention.

[0031] FIG. 3A shows the open layer 10 after an SAP layer 14 is laid onto the open layer and, is shown, with a film of textile layer laid onto the SAP layer. But, the SAP layer extends into the open layer due to the "open" nature of the layer, and most importantly the SAP layer will swell when exposed to water into this open layer, again due to the open nature of the layer, see FIG. 3B. The total thickness of the composite layer 18 will change only marginally when the SAP layer swells after contacting water.

[0049] The resulting structure of the tape in cross section will be as shown in FIG. 3, although some of the SAP will have migrated into the open layer as in FIG. 2. The adhesive may be of many types known in the art, but water based acrylic latices (acrylic latex) and polyvinyl alcohol or blends thereof are preferred.

Paragraphs [0045]-[0047] of Terry also teach use of wet or dry adhesives to adhere the open layer, SAP powder or fiber and the support layer together.

Applicants respectfully disagree with the Patent Office allegation that "it can be seen that the embodiments of Figures 2-3 do not require adhesive". Paragraph [0049] of Terry is specifically directed to the embodiments of FIGS. 2 and 3 of Terry and specifically states that the adhesives utilized may be of many types known in the art and that water based acrylic latices (acrylic latex) and polyvinyl alcohol or blends thereof are preferred.

In view of these teachings of Terry, Applicants submit that Terry does not teach or suggest mechanical bond formations that join, without adhesive, the separate layers A, B and C to form the backing as required by amended claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Terry, Terry cannot anticipate, and would not have rendered obvious to one of

ordinary skill in the art, the features specifically defined in claim 1 and its dependent claims.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

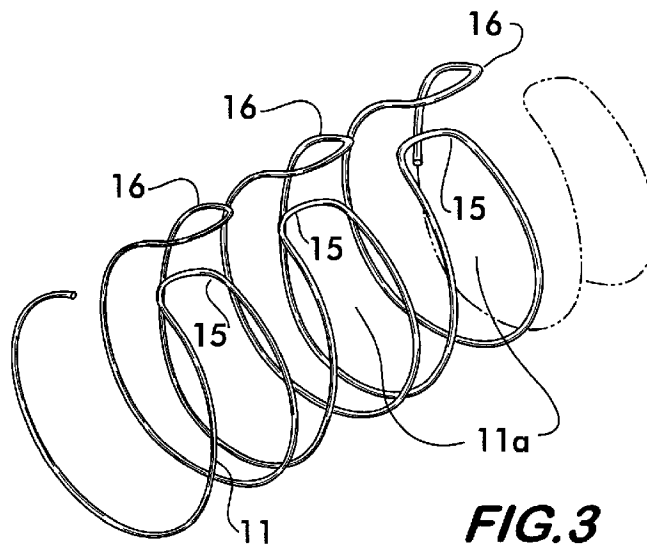
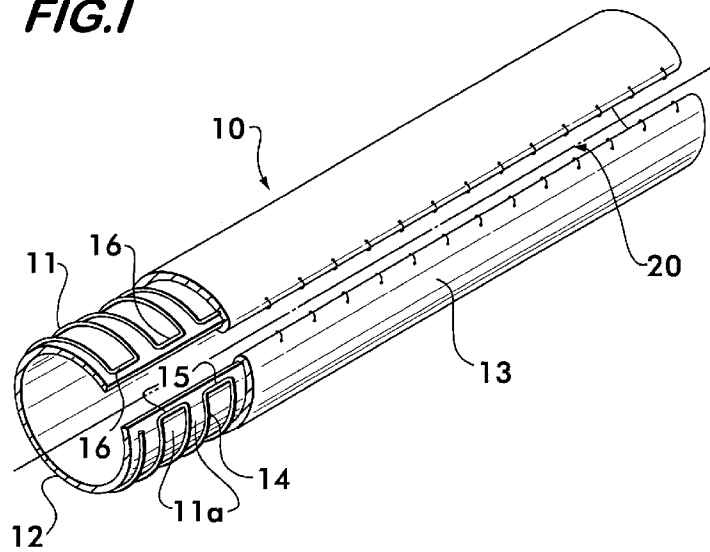
**B. Külper and Blackmore et al.**

Claims 1, 3-5, 7, 8 and 15-16 were rejected under 35 USC 103(a) as allegedly being unpatentable over DE 10039982 to Külper in view of US Patent Publication No. 2004/0082243 to Blackmore et al. (hereinafter "Blackmore") and US Patent No. 6,309,721 to Gladfelter et al. (hereinafter "Gladfelter"). This rejection is respectfully traversed.

The Patent Office alleges that each and every feature of the foregoing claims would have been obvious to a skilled artisan, at the time of the invention, in view of the teachings of Külper, Blackmore and Gladfelter. Applicants respectfully disagree with the allegations by the Patent Office as set forth in the Office Action.

The Patent Office alleges that col. 3, lines 56-65 of Gladfelter teach or suggest the features of claim 1, namely, a mechanical bond formation joining, without adhesive, separate layers A, B and C (allegedly Gladfelter's outer layer 13, support layer 11 and inner layer 12) to form an assembly (see page 7 of the Final Rejection). Contrary to the Patent Office's allegations, Gladfelter's support layer 11 is not a layer per se; instead, Gladfelter's support layer 11 is metallic or non-metallic wire that is bent in serpentine fashion and then bent about a long axis as that it is generally C-shaped when view along the axis as shown below in FIGS. 1 and 2 (see col. 3, lines 1-17 of Gladfelter).

**FIG. 1**



**FIG. 3**

In view of FIGS. 1 and 3 of Gladfelter, Applicants submit Gladfelter's support layer 11 (i.e., wire form support layer) does not teach or suggest and can not be compared to the presently claimed layer C as alleged by the Patent Office.

On page 10 of the Final Rejection, the Patent Office sets forth:

43. However, there is nothing in claim 1 that requires each individual layer to be mechanically bonded, i.e. stitched together. Further, it is the Examiner's position that Gladfelter et al. meets claim 16 given that stitching layer 12 and 13 together would necessarily result in layer 11 being intermeshed with each of layers 12 and 13 given that it is sandwiched in between.

Claim 1 has been amended to require that the first side of the first outer layer A is connected, via a first mechanical bond formation, to a separate layer C over an entire area of the first side of the first outer layer A, wherein the layer C is connected, via a second mechanical bond formation, on an open side to a separate second outer layer B over an entire area of a first side of the second outer layer B, wherein the mechanical bond formations join, without adhesive, the separate layers A, B and C to form the backing.

Nowhere does Gladfelter teach or suggest mechanical bond formations join separate layers A, B and C. The passage cited by the Patent Office sets forth:

With particular reference to FIGS. 1 and 2-2b, several preferred embodiments of sleeves formed according to the invention are illustrated. As shown in FIG. 1, wire form support layer 11 is sandwiched between inner and outer layers 12 and 13. Inner and outer layers 12 and 13 may be comprised of a variety of materials depending upon the conditions to which the sleeve is to be exposed. In one preferred form, an abrasion-resistant sleeve may be constructed using inner and outer layers of polyester film. The film layers may be stitched together, as illustrated, or adhesively secured or heat bonded to form an interlocked, laminated three-layer product having high hoop strength but

Thus, at best, Gladfelter teaches inner and outer film layers 12, 13 may be stitched together; and, as a result, the wire form support layer 11 is sandwiched between the inner and outer layer 12, 13. Nowhere does Gladfelter teach that the inner and/or outer film layers 12, 13 may be joined or stitched to the support layer

11. At best, Gladfelter teaches that the inner and outer film layers 12, 13 are joined or stitched together.

Thus, Külper, Blackmore and Gladfelter, taken singly or in combination, fail to teach or suggest mechanical bond formations join the separate layers A, B and C to form the backing as required by amended claim 1.

Because the features of independent claim 1 are neither taught nor suggested by Külper, Blackmore and Gladfelter, taken singly or in combination, these reference would not have rendered the features specifically defined in claim 1 and its dependent claims obvious to one of ordinary skill in the art.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

## **II. Rejoinder**

Applicants submit that upon allowance of claims 1, 3-5, 7, 8, 15 and 16, claims 9-12 should be rejoined with the application and similarly allowed.

Reconsideration and withdrawal of the restriction requirement is respectfully requested.

## **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-5, 7-12, 15 and 16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Early and favorable action is earnestly solicited.

**CONDITIONAL PETITION FOR EXTENSION OF TIME**

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

**ADDITIONAL FEE**

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

Respectfully submitted,  
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